

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 3-87

NVIC 3-87
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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 3-87

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Subj: Implementation of 1983 SOLAS Amendments on Lifesaving Appliances and Arrangements

Ref: (a) NVIC 7-82; Sample Format of Vessel or Facility Station Bill
(b) NVIC 1-87; Installation of Retroreflective Material on Lifesaving Equipment

1. **PURPOSE.** This Circular provides information on new international life-saving equipment and operational requirements applicable to ships engaged in international voyages. The requirements are contained in Chapter III of the 1983 Amendments to the 1974 Safety of Life at Sea Convention (SOLAS). The 1983 Amendments came into force on 1 July 1986, and apply only to ships that have SOLAS Passenger Ship Safety Certificates or SOLAS Cargo Ship Safety Equipment Certificates.
2. **DISCUSSION.** SOLAS ships with keels laid on or after 1 July 1986 are required to meet Chapter III of the 1983 SOLAS Amendments for lifesaving appliances and arrangements. SOLAS ships with keels laid before 1 July 1986 are required to meet certain operational requirements as of 1 July 1986, and certain equipment requirements as of 1 July 1991. Enclosure (1) is an annotated excerpt of the new SOLAS requirements applying to ships with keels laid before 1 July 1986. To assist the reader, enclosure (1) includes a number of clarifying notes in square brackets ((1) to supplement the official SOLAS text. Many of the requirements new to SOLAS are already in effect for U.S. Coast Guard inspected ships under existing rules in Title 46 of the Code of Federal Regulations (46 CFR). For foreign ships undergoing SOLAS control inspections in U.S. ports, many of the requirements will be new.
 - a. **"New" U.S. ships.** U.S. registered SOLAS ships with keels laid on or after 1 July 1986 are required to meet Chapter III of the 1983 SOLAS Amendments as well as the applicable regulations in 46 CFR. Until the new requirements are included in the Code of Federal Regulations, the 1983 SOLAS Amendments prevail in any case of conflict. Enclosure (2) is a list of lifesaving equipment under the 1983 SOLAS Amendments, along with the Coast Guard approval number series for each item, and any special markings that will be included on the device. Although intended primarily for "existing" ships, some of the explanations of the SOLAS regulations that follow in paragraphs 2.b and 2.c may also be useful in resolving questions about certain requirements for new ships. The following should also be noted:
 - (1) The requirement for survival craft emergency position indicating radio beacons (EPIRB) in regulation 111/6.2.3¹ may be met by the carriage of survival craft radar transponders. See the note following regulation 111/6.2.3 in enclosure (1). At least one survival craft radar transponder must be stowed on each side of the ship, or alternatively, one must be stowed in each survival craft. In the future implementing rules in the Code of Federal Regulations, the Coast Guard will consider a requirement for a transponder in each survival craft, and not permitting the option of stowing one on each side of the ship ready to be carried

¹ Citations of SOLAS regulations in this circular follow the current SOLAS format: chapter number (III), followed by a slash (I), followed by the regulation, paragraph, and sub-paragraph numbers separated by decimals (6.2.3 means regulation 6, paragraph 2, sub-paragraph 3).

to a survival craft. We recommend that owners and operators not attempt to meet this requirement with survival craft (Class S) EPIEBs. On U.S. ships, the alerting function of the survival craft EPIRB is provided by the Class A float-free EPIRB required by current regulations.

- (2) As of the date of this circular, the International Maritime Organization ('MO) had not approved a recommendation on the symbols required under regulation 111/9.2.3. Until such a recommendation is approved, this requirement cannot be enforced; however, the IMO Maritime Safety Committee has published a circular letter (MSC/Circ.445), circulating the draft resolution on symbols, anticipating adoption in November, 1987 (end. (4)). Use of these symbols is recommended now.
- (3) By law [46 U.S.C. 3102(a)], the Coast Guard cannot grant exemptions to the requirements for the carriage of immersion suits and thermal protective aids based on the type of lifeboats or liferafts carried. Regulations 111/21.4.2.1, 111/27.3.2.1, 111/27.3.2.2, 111/27.3.3.1, and 111/27.3.3.2 are affected.
- (4) The IMO Maritime Safety Committee has published a circular letter (MSC/Circ.444), clarifying certain provisions of Chapter III of the 1983 SOLAS Amendments. Most of these relate to the approval of new lifesaving appliances, but one clarifies the requirements for the arrangement of survival craft on tankers, as follows:

Regulation 111/13.1.5 stating that "survival craft shall be stowed protected from damage by fire and explosion" means that, at a minimum, survival craft installed on tankers shall not be stowed on or above a cargo tank, slop tank, or other tank containing explosives or hazardous liquids. This clarification should not apply to liferafts required by regulation 111/26.1.4.

- (5) The IMO Maritime Safety Committee has published a circular letter (MSC/Circ.447) (end. (3)), noting that "efficient" radar reflectors for liferafts are not yet available, and that until they are available, the lack of a radar reflector in a liferaft should not constitute a reason for detaining or delaying a ship.

- b. "Existing" U.S. ships - requirements applicable 1 July 1986. U.S. registered SOLAS ships with keels laid before 1 July 1986 are required to meet certain operational requirements of Chapter III of the 1983 SOLAS Amendments as well as the applicable regulations in Title 46 of the Code of Federal Regulations. The following regulations from Chapter III of the 1983 SOLAS Amendments may require action by U.S. ships as of 1 July 1986 to fully comply:

- (1) 1.4.3 and 1.4.4. With the exception of the lifeboats and launching apparatus as explained at the end of regulation 111/1.4.3, all replacement lifesaving equipment should meet the 1983 SOLAS Amendments, insofar as is reasonable and practicable. Limited availability or non-availability of some equipment in the transition period between 1986 and 1991 would be the primary reason compliance would be unreasonable or impracticable. Under regulation 111/1.4.4, replacement equipment complying with the 1983 SOLAS Amendments is not absolutely required until after 1 July 1991. Enclosure (2) is a list of lifesaving equipment under the 1983 SOLAS Amendments, along with the Coast Guard

approval number series for each item, and any special markings that will be included on the device.

- (2) 8.2 and 8.4. For ships that are not passenger ships, but which carry passengers, stateroom notices must be provided in accordance with 46 CFR 78.47-47(a).
- (3) 9.2.1. Davit, winch, and lifeboat controls should be checked to make sure all are appropriately identified, and function in each position is adequately identified. For example, a winch should have hoisting and lowering positions indicated, as well as on and off positions for winch motor controls. Lifeboats must have complete engine starting instructions posted on the engine box, or in view of the helmsman. Inflatable liferafts must have the instruction placard required in 46 CFR 160.051-8(b).
- (4) 10.5. In addition to the person in command of a lifeboat, the person designated second in command must also have a list of the lifeboat crew.
- (5) 18.2. A lifesaving systems and equipment training manual must be assembled from whatever manufacturer's information, and other survival training information is available. Loose-leaf format in a ring binder is suggested, so that additional or revised information can be added as it is received. Alternatively, audio-visual training material can be used. If the training material is a manual, a copy of the manual must be kept in each crew messroom and recreation room, or in each crew cabin. The training manual is not required to be approved by the Coast Guard, but the training material provided by manufacturers of equipment meeting the 1983 SOLAS Amendments, will be approved when the equipment is approved.
- (6) 18.3.1. Although current 46 CFR rules require a weekly drill, this regulation introduces a participation requirement; each member of the crew must participate in a drill once a month.
- (7) 18.3.2. For ships carrying passengers, including ships that are not passenger ships, musters of the passengers within 24 hours of leaving port must be held as in 46 CFR 78.17-50(a). Alternatively, for a ship carrying passengers on a short international voyage, the attention of the passengers must be drawn to the emergency instructions. The passenger safety orientation procedure in 46 CFR 185.25-1(d) used on small passenger vessels is suggested.
- (8) 18.3.4. The items in 18.3.4.1, 18.3.4.3, 18.3.4.4 may be new for drill procedures on some ships.
- (9) 18.3.7 and 18.3.8. In addition to lowering, each lifeboat and each rescue boat must actually be launched and maneuvered in the water once every three months.
- (10) 18.4. Present rules in 46 CFR require the master to instruct the crew in the duties assigned to them in the station bill. This new SOLAS regulation is more specific about the instruction, and considers it to be on-board training. The training must be given to a new crew member within two weeks of joining the ship for the first time. Instructions in the use of the lifesaving equipment and in survival at sea must be given at the same interval as the drills, and all the ship's lifesaving equipment must be covered within any period of 2 months. On cargo ships (including tank ships), we suggest that every other weekly drill be converted to a training session to meet this requirement. The training manual or the alternative audiovisual material should be useful in complying with this requirement. If a training session is substituted for a drill, note that regulation 111/19.6 still requires a weekly inspection of the boats and launching equipment, and operation of the lifeboat engines.
- (11) 19.3.1. Under this new rule it is now mandatory for ships to (1) have in their possession the available manufacturer's maintenance material for their lifesaving equipment, and (2) conduct the maintenance accordingly.

- (12) 19.4. Falls used in launching must be turned end-for-end at intervals of not more than 30 months and be renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is the earlier. If the design of the falls does not allow them to be turned end-for-end, they must be replaced every 30 months. The reinstallation of cable end fittings involved with this end-for-ending must be strictly in accordance with the equipment manufacturer's original design or its Coast Guard-approved alternative.
 - (13) 19.5. Spares and repair equipment are required on board. If the various maintenance manuals do not specify lists of spare parts recommended to be on board, the ship must have the parts most frequently used in on-board maintenance, such as belts, hoses, oil and fuel filters, etc.
 - (14) 19.8.2. Permanent repairs to the inflated components of inflated or rigid/inflated rescue boats must be carried out at approved servicing stations. These will normally be approved liferaft servicing facilities.
 - (15) 53.2 and 53.4. The particulars of the muster list not now covered by the 46 CFR rules on station bills or by NVIC 7-82 include -
 - (a) equipping of the survival craft and other lifesaving appliances;
 - (b) general preparations of lifesaving appliances other than lifeboats and liferafts;
 - (c) use of communication equipment; and
 - (d) substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions.
 - (16) 53.7. The format of the muster list used on passenger ships must be approved by the Officer in Charge of Marine Inspection.
- c. "Existing" U.S. ships - requirements applicable 1 July 1991. The following regulations from Chapter III of the 1983 SOLAS Amendments may require action by 1 July 1991 for U.S. ships with keels laid before 1 July 1986:
- (1) 1.4.3 and 1.4.4. With the exception of the lifeboats and launching apparatus as explained at the end of regulation 111/1.4.3, all replacement lifesaving equipment must meet the 1983 SOLAS Amendments. Enclosure (2) is a list of lifesaving equipment under the 1983 SOLAS Amendments, along with the Coast Guard approval number series for each item, and any special markings that will be included on the device.
 - (2) 6.2.3. The requirement for survival craft emergency position indicating radio beacons (EPIRB) in regulation 111/6.2.3 may be met by the carriage of survival craft radar transponders. At least one survival craft radar transponder must be stowed on each side of the ship, or alternatively, one must be stowed in each survival craft. In the future implementing rules in the Code of Federal Regulations, the Coast Guard will consider a requirement for a transponder in each survival craft, and not permitting the option of stowing one on each side of the ship ready to be carried to a survival craft. We recommend that owners and operators not attempt to meet this requirement with survival craft (Class S) EPIRBs. On U.S. ships, the alerting function of the survival craft EPIRB is provided by the Class A float-free EPIRB required by current regulations.

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 3-87

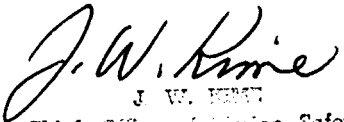
- (3) 6.2.4. Under the new rules, a ship must have three or more portable two-way radios for communication with each other on a common frequency other than VHF Channel 16.
 - (4) 21.4.2. Passenger ships must carry for each lifeboat on the ship, at least three immersion suits and, in addition, a thermal protective aid for each person to be accommodated in the lifeboat and not provided with an immersion suit.
 - (a) The immersion suits are intended for use by the crew, since thermal protective aids are not necessarily suitable for the tasks that the crew members must carry out.
 - (b) Thermal protective aids are intended to be worn in a survival craft, and are not necessarily suitable for walking or use in the water. They may therefore be stowed in the survival craft, at the muster station, or with the life jackets, as the operator chooses.
 - (c) If the ship operates only on routes between 32° N and 32° 5' latitude in the Atlantic Ocean, or between 35° N and 35° N latitude in all other waters, the immersion suits and thermal protective aids are not required.
 - (5) 26.3.1. Cargo ships (including tank ships) must have float-free inflatable liferafts for 100% of the persons permitted on board, in lieu of the present 50% capacity.
 - (6) 26.3.2. On cargo ships (including tank ships) where the survival craft are located more than 100 m (328 ft.) from the stem or stern, an additional liferaft is required as far forward or aft, or one as far forward and another as far aft, as is reasonable and practicable. This liferaft cannot be counted toward meeting the 100% capacity requirement in regulation 111/26.3.1. This liferaft is also not required to be arranged for float-free operation.
 - (7) 30.7. All lifeboats, liferafts, rescue boats, buoyant apparatus, ring life buoys, and life preservers on SOLAS ships must be equipped with retroreflective material. See NVIC [1-87] for details.
- d. "New" foreign ships. Foreign registered ships with keels laid on or after 1 July 1986, undergoing SOLAS control inspections in U.S. ports should be required to show evidence that they comply in full with the 1983 SOLAS Amendments. The following should also be noted:
- (1) The requirement for survival craft emergency position indicating radio beacons (EPIRB) in regulation 111/6.2.3 may be met by the carriage of survival craft radar transponders only if the ship also carries a float-free EPIRB operating on 121.5 MHz or 406.025 MHz. See the note following regulation 111/6.2.3 in enclosure (1).
 - (2) As of the date of this Circular, IMO had not approved a recommendation on the symbols required under regulation 111/9.2.3. Until such a recommendation is approved, this requirement cannot be enforced.
 - (3) The IMO Maritime Safety Committee has published a circular letter (MSC/Circ.444), clarifying certain provisions of Chapter III of the 1983 SOLAS

NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 3-87

Amendments. Most of these relate to the approval of new lifesaving appliances, but one clarifies the requirements for the arrangement of survival craft on tankers, as follows:

Regulation 111/13.1.5 stating that "survival craft shall be stowed protected from damage by fire and explosion" means that, at a minimum, survival craft installed on tankers shall not be stowed on or above a cargo tank, slop tank, or other tank containing explosives or hazardous liquids. This clarification should not apply to liferafts required by regulation 111/26.1.4.

- (4) The 'MO Maritime Safety Committee has published a circular letter (MSC/Circ.447) (end. (3)), noting that "efficient" radar reflectors for liferafts are not yet available, and that until they are available, the lack of a radar reflector in a liferaft should not constitute a reason for detaining or delaying a ship.
- e. "Existing" foreign ships. Foreign registered ships with keels laid before 1 July 1986 should comply with SOLAS 1974, SOLAS 1960, or SOLAS 1948, as applicable, and in addition should comply with the 1983 SOLAS Amendments contained in enclosure (1).
- 3. ACTION. Until Title 46 of the Code of Federal Regulations is revised to incorporate the 1983 SOLAS Amendments, vessel owners and operators shall use this circular for guidance in applying the requirements of Chapter III of the 1983 SOLAS Amendments.


J. W. KENT
Chief, Office of Marine Safety,
Security and Environmental Protection

- End:
- (1) 1983 SOLAS Amendments Applicable to Ships Constructed Before 1 July 1986
 - (2) Approved Lifesaving Equipment under the 1983 SOLAS Amendments
 - (3) MSC/Circ.447
 - (4) MSC/Circ.445

INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974
Chapter III, LIFE-SAVING APPLIANCES AND ARRANGEMENTS
1983 Amendments Applicable to Ships Constructed Before 1 July 1986

PART A - GENERAL

Regulation 1

Application

1 Unless expressly provided otherwise, this chapter shall apply to ships the keels of which are laid or which are at a similar stage of construction on or after 1 July 1986.

2 For the purpose of this chapter the term "a similar stage of construction" means the stage at which:

- .1 construction identifiable with a specific ship begins; and
- .2 assembly of that ship has commenced comprising at least 50 tones or 1% of the estimated mass of all structural material, whichever is less.

3 For the purpose of this chapter:

- .1 the expression "ships constructed" means "ships the keels of which are laid or which are at a similar stage of construction";
- .2 the expression "all ships" means "ships constructed before, on or after 1 July 1986"; the expressions "all passenger ships" and "all cargo ships" shall be construed accordingly;
- .3 a cargo ship, whenever built, which is converted to a ship shall be treated as a passenger ship constructed date on which such a conversion commences.

4 For ships constructed before 1 July 1986, the Administration shall:

- .1 ensure that, subject to the provisions of paragraphs 4.2 and 4.3, the requirements which are applicable under chapter III of the International Convention for the Safety of Life at Sea, 1974, in force prior to 1 July 1986 to new or existing ships as prescribed by that chapter are complied with; passenger on the
- .2 consider the life-saving appliances and arrangements in ships which do not comply with the requirements referred to in paragraph 4.1, with a view to securing, so far as this is reasonable and practicable and as early as possible, substantial compliance with those requirements;
- .3 ensure that when life-saving appliances or arrangements on such ships are replaced or such ships undergo repairs, alterations or modifications of a major character which involve replacement of, or any addition to, their existing life-saving appliances or arrangements, such life-saving appliances or arrangements, insofar as is reasonable and practicable, comply with the requirements of this chapter. However, if a survival craft is replaced without replacing its launching appliance, or vice versa, the survival craft or launching appliance may be of the same type as that replaced;

- .4 approve the life-saving appliances to be provided in compliance with paragraph 6. The Administration may permit those lifesaving appliances provided on board ships prior to 1 July 1991 not to comply fully with the requirements of this chapter as long as they remain in a satisfactory condition;
- .5 except as provided for survival craft and launching appliances referred to in paragraph 4.3, ensure that life-saving appliances replaced or installed on or after 1 July 1991 are evaluated, tested and approved in accordance with the requirements of regulations 4 and 5.
- 5 With respect to ships constructed before 1 July 1986 the requirements of regulations 8, 9, 10, 18 and 25 and, to the extent prescribed therein, regulation 19 shall apply.
- 6 With respect to ships constructed before 1 July 1986 the requirements of regulations 6.2.3, 6.2.4, 21.3, 21.4, 26.3, 27.2, 27.3 and 30.2.7 shall apply not later than 1 July 1991.

Regulation 2 Exemptions

1 The Administration may, if it considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of this chapter unreasonable or unnecessary, exempt from those requirements individual ships or classes of ships which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

2 * * *

Regulation 3 Definitions

For the purpose of this chapter, unless expressly provided otherwise:

1 Certificated person is a person who holds a certificate of proficiency in survival craft issued under the authority of, or recognized as valid by, the Administration in accordance with the requirements of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, in force; or a person who holds a certificate issued or recognized by the Administration of a State not a Party to that Convention for the same purpose as the convention certificate.

[Note: On U.S. ships, a certificated person is one who holds a lifeboatman endorsement.]

2 Detection is the determination of the location of survivors or survival craft.

* * * * *

5 Free-fall launching is that method of launching a survival craft whereby the craft with its complement of persons and equipment on board is released and allowed to fall into the sea without any restraining apparatus.

6 Immersion suit is a protective suit which reduces the body heat-loss of a person wearing it in cold water.

[Note: For ships built before 1 July 1986, a Coast Guard approved exposure suit with an approval number beginning "160.071" is equivalent to a SOLAS immersion suit.]

- 7 Inflatable appliance is an appliance which depends upon non-rigid, gas filled chambers for buoyancy and which is normally kept uninflated until ready for use.
- 8 Inflated appliance is an appliance which depends upon non-rigid, gas filled chambers for buoyancy and which is kept inflated and ready for use at all times.
- 9 Launching appliance or arrangement is a means of transferring a survival craft or rescue boat from its stowed position safely to the water.
- * * * * *
- 13 Rescue boat is a boat designed to rescue persons in distress and to marshal survival craft.
- 14 Retrieval is the safe recovery of survivors.
- 15 Retroreflective material is a material which reflects in the opposite direction a beam of light directed on it.
- 16 Short international voyage is an international voyage in the course of which a ship is not more than 200 miles from a port or place in which the passengers and crew could be placed in safety. Neither the distance between the last port of call in the country in which the voyage begins and the final port of destination nor the return voyage shall exceed 600 miles. The final port of destination is the last port of call in the scheduled voyage at which the ship commences its return voyage to the country in which the voyage began.
- 17 Survival craft is a craft capable of sustaining the lives of persons in distress from the time of abandoning the ship.
- 18 Thermal protective aid is a bag or suit made of waterproof material with low thermal conductivity.

Regulation 4

Evaluation, testing and approval of life-saving appliances and arrangements.

- 1 Except as provided in paragraphs 5 and 6, life-saving appliances and arrangements required by this chapter shall be approved by the Administration.
- * * * * *
- 5 Before accepting life-saving appliances and arrangements that have not been previously approved by the Administration, the Administration shall be satisfied that life-saving appliances and arrangements comply with the requirements of this chapter.
- 6 Life-saving appliances required by this chapter for which detailed specifications are not included in part C shall be to the satisfaction of the Administration.

* * * * *

PART B - SHIP REQUIREMENTS
SECTION I - PASSENGER SHIPS AND CARGO SHIPS
Regulation 6
Communications

- 1 Paragraphs 2.3 and 2.4 apply to all ships. With respect to ships constructed before 1 July 1986, paragraphs 2.3 and 2.4 shall apply not later than 1 July 1991.

2 Radio life-saving appliances

* * * * *

- 2.3 Survival craft emergency position-indicating radio beacons One manually activated emergency position-indicating radio beacon complying with the requirements of regulation IV/14-1 shall be carried on each side of the ship. They shall be so stowed that they can be rapidly placed in any survival craft other than the liferaft or liferafts required by regulation 26.1.4.

[Note: The EPIRB complying with this requirement is designated a Class S EPIRB by the Federal Communications Commission. However, under the Global Maritime Distress and Safety System now under development at the International Maritime Organization (IMO), a radar transponder will be carried in lieu of the survival craft EPIRB. Carriage may be one on each side of the ship, or one in each survival craft.

The IMO Maritime Safety Committee has recommended through a circular letter (MSC/Circ.423), that Administrations accept carriage of radar transponders for the purposes of this regulation, pending revision of the regulation. In the deliberations at IMO, the United States noted that the EPIRB required under this regulation operating on 121.5 and 243 MHz, provides an alerting function that the radar transponder does not provide. Consequently, U.S. ships, and foreign ships calling at U.S. ports will carry in addition to the survival craft radar transponder, an EPIRB operating on either 121.5/243 MHz, or a satellite EPIRB operating on 406.025 MHz. Since all U.S. ships are required to carry Class A EPIRBs operating on 121.5/243 MHz, they may comply with regulation 6.2.3 by carrying either Class S EPIRBs, or survival craft radar transponders.]

2.4 Two-way radiotelephone apparatus

- 2.4.1 Two-way radiotelephone apparatus complying with the requirements of regulation IV/14-3 shall be provided for communication between survival craft, between survival craft and ship and between ship and rescue boat. An apparatus need not be provided for every survival craft; however, at least three apparatus shall be provided on each ship. This requirement may be complied with by other apparatus used on board provided such apparatus is not incompatible with the appropriate requirements of regulation 1v14-3.

- 2.4.2 For ships constructed before 1 July 1986 such apparatus need only comply with the frequency requirements of regulation IV/14-3.

(Note: For ships constructed before 1 July 1986, the intent of this regulation is to allow the requirement to be met by any three or more portable two-way radios that can operate on the same frequency (other than VHF channel 16).]

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Regulation 8
Muster list [station bill] and emergency instructions

- 1 This regulation applies to all ships
- 2 Clear instructions to be followed in the event of an emergency shall be provided for every person on board.
- 3 Muster lists complying with the requirements of regulation 53 shall be exhibited in conspicuous places throughout the ship including the navigating bridge, engine-room and crew accommodation spaces.
- 4 Illustrations and instructions in appropriate languages shall be posted in passenger cabins and be conspicuously displayed at muster stations and other passenger spaces to inform passengers if:
 - .1 their muster station;
 - .2 the essential actions they must take in an emergency;
 - .3 the method of donning lifejackets.

Regulation 9
Operating instructions

- 1 This regulation applies to all ships.
- 2 Posters or signs shall be provided on or in the vicinity of survival and their launching controls and shall:
 - .1 illustrate the purpose of controls and the procedures for operating the appliance and give relevant instructions or warnings;
 - .2 be easily seen under emergency lighting conditions;
 - .3 use symbols in accordance with the recommendations of the Organization.

(Note: As of the date of this Circular, the Organization (IMO) had not approved a recommendation on these symbols. Until such a recommendation is approved, this requirement cannot be enforced.)

Regulation 10
Manning of survival craft and supervision

- 1 This regulation applies to all ships.
- 2 There shall be a sufficient number of trained persons on board for mustering and assisting untrained persons.
- 3 There shall be a sufficient number of crew members, who may be deck officers or certificated persons, on board for operating the survival craft and launching arrangements required for abandonment by the total number of persons on board.
- 4 A deck officer or certificated person shall be placed in charge of each survival craft to be used. However, the Administration, having due regard to the nature of the voyage, the number of persons on board and the characteristics of the ship, may permit persons practiced in the handling and operation of liferafts to be placed in charge of liferafts in lieu of persons qualified as above. A second-in-command shall also be nominated in the case of lifeboats.
- 5 The person in charge of the survival craft shall have a list of the survival craft crew and shall see that the crew under his command are acquainted with their duties. In lifeboats the second-in-command shall also have a list of the lifeboat crew.
- 6 Every (Class 3 motor] lifeboat (on a passenger ship] required to carry a radiotelegraph installation complying with the requirements of regulation 6.2.2 shall have a person assigned who is capable of operating the equipment.
- 7 Every motorized survival craft shall have a person assigned who is capable of operating the engine and carrying out minor adjustments. 8 The master shall ensure the equitable distribution of persons referred to in paragraphs 2, 3 and 4 among the ship's survival craft.
- * * * * *

Regulation 18
Abandon ship training and drills

- 1 This regulation applies to all ships.

- 2 Manuals

A training manual complying with the requirements of regulation 51 shall be provided in each crew messroom and recreation room or in each crew cabin.

(Note: The IMO Maritime Safety Committee has recognized in a circular letter (MSC/Circ.447), that for certain practical reasons, it may not be possible for ships built before 1 July 1986 to comply strictly with the requirements for a training manual. Ships should therefore not be detained or delayed for failure to fully comply with the requirements for the training manual.)

- 3 Practice musters and drills

- 3.1 Each member of the crew shall participate in at least one abandon ship drill and one fire drill every month. The drills of the crew shall take place within 24 h of the ship leaving a

port if more than 25% of the crew have not participated in abandon ship and fire drills on board that particular ship in the previous month. The Administration may accept other arrangements that are at least equivalent for those classes of ship for which this is impracticable.

- 3.2 On a ship engaged on an international voyage which is not a short international voyage, musters of the passengers shall take place within 24 h after their embarkation. Passengers shall be instructed in the use of the lifejackets and the action to take in an emergency. If only a small number of passengers embark at a port after the muster has been held it shall be sufficient, instead of holding another muster, to draw the attention of these passengers to the emergency instructions required by regulations 8.2 and 8.4.
- 3.3 On a ship engaged on a short international voyage, if a muster of the passengers is not held on departure, the attention of the passengers shall be drawn to the emergency instructions required by regulations 8.2 and 8.4.
- 3.4 Each abandon ship drill shall include:
 - .1 summoning of passengers and crew to muster stations with the alarm required by regulation 6.4.2 and ensuring that they are made aware of the order to abandon ship specified in the muster list;
 - .2 reporting to stations and preparing for the duties described in the muster list;
 - .3 checking that passengers and crew are suitably dressed;
 - .4 checking that lifejackets are correctly donned;
 - .5 lowering of at least one lifeboat after any necessary preparation for launching;
 - .6 starting and operating the lifeboat engine;
 - .7 operation of davits used for launching liferafts.
- 3.5 Different lifeboats shall, as far as practicable, be lowered in compliance with the requirements of paragraph 3.4.5 at successive drills.
- 3.6 Drills shall, as far as practicable, be conducted as if there were an actual emergency.
- 3.7 Each lifeboat shall be launched with its assigned operating crew aboard and maneuvered in the water at least once every 3 months during an abandon ship drill. The Administration may allow ships operating on short international voyages not to launch the lifeboats on one side if their berthing arrangements in port and their trading patterns do not permit launching of lifeboats on that side. However, all such lifeboats shall be lowered at least once every 3 months and launched at least annually.
- 3.8 As far as is reasonable and practicable, rescue boats other than lifeboats which are also rescue boats, shall be launched each month with their assigned crew aboard and maneuvered in the water. In all cases this requirement shall be complied with at least once every 3 months.
- 3.9 If lifeboat and rescue boat launching drills are carried out with the ship making headway, such drills shall, because of the dangers involved, be practiced in sheltered waters only and under the supervision of an officer experienced in such drills.
- 3.10 Emergency lighting for mustering and abandonment shall be tested at each abandon ship drill.

4 On-board training and instructions

- 4.1 On-board training in the use of the ship's life-saving appliances, including survival craft equipment, shall be given as soon as possible but not later than 2 weeks after a crew member joins the ship. However, if the crew member is on a regularly scheduled rotating assignment to the ship, such training shall be given not later than 2 weeks after the time of first joining the ship.
- 4.2 Instructions in the use of the ship's life-saving appliances and in survival at sea shall be given at the same interval as the drills. Individual instruction may cover different parts of the ship's life-saving system, but all the ship's life-saving equipment and appliances shall be covered within any period of 2 months. Each member of the crew shall be given instructions which shall include but not necessarily be limited to:
- .1 operation and use of the ship's inflatable liferafts;
 - .2 problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures;
 - .3 special instructions necessary for use of the ship's lifesaving appliances in severe weather and severe sea conditions.
- 4.3 On-board training in the use of davit-launched liferafts shall take place at intervals of not more than 4 months on every ship fitted with such appliances. Whenever practicable this shall include the inflation and lowering of a liferaft. This liferaft may be a special liferaft intended for training purposes only, which is not part of the ship's life-saving equipment; such a special liferaft shall be conspicuously marked.

5 Records

The date when musters are held, details of abandon ship drills and fire drills, drills of other life-saving appliances and on-board training shall be recorded in such log-book as may be prescribed by the Administration. If a full muster, drill or training session is not held at the appointed time, an entry shall be made in the log-book stating the circumstances and the extent of the muster, drill or training session held.

Regulation 19
Operational readiness, maintenance and inspections

- 1 This regulation applies to all ships. The requirements of paragraphs 3 and 6.2 shall be complied with, as far as is practicable, on ships constructed before 1 July 1986.

2 Operational readiness

Before the ship leaves port and at all times during the voyage, all life-saving appliances shall be in working order and ready for immediate use.

3 Maintenance

3.1 Instructions for on-board maintenance of life-saving appliances complying with the requirements of regulation 52 shall be provided and maintenance shall be carried out accordingly.

3.2 The Administration may accept, in lieu of the instructions required by paragraph 3.1, a shipboard planned maintenance program which includes the requirements of regulation 52.

[Note: The proviso in regulation 19.1 is intended to allow this requirement to be met by whatever maintenance instructions are available for lifesaving appliances on ships built before 1 July 1986. Full compliance with regulation 52 is not necessary.]

4 Maintenance of falls

Falls used in launching shall be turned end for end at intervals of not more than 30 months and be renewed when necessary due to deterioration of the falls or at intervals of not more than 5 years, whichever is the earlier.

5 Spares and repair equipment

Spares and repair equipment shall be provided for life-saving appliances and their components which are subject to excessive wear or consumption and need to be replaced regularly.

6 Weekly inspection

The following tests and inspections shall be carried out weekly:

- .1 all survival craft, rescue boats and launching appliances shall be visually inspected to ensure that they are ready for use;
- .2 all engines in lifeboats and rescue boats shall be run ahead and astern for a total period of not less than 3 mm provided the ambient temperature is above the minimum temperature required for starting the engine. In special cases the Administration may waive this requirement for ships constructed before 1 July 1986;
[Note: The "special cases" are boat engines or shaft bearings not able to be operated out of water without damage.]
- .3 the general emergency alarm system shall be tested.

7 Monthly inspections

Inspection of the life-saving appliances, including lifeboat equipment, shall be carried out monthly using the checklist required by regulation 52.1 to ensure that they are complete and in good order. A report of the inspection shall be entered in the log-book.

8 Servicing of inflatable liferafts, inflatable lifejackets and inflated rescue boats

8.1 Every inflatable liferaft and inflatable lifejacket shall be serviced:

- .1 at intervals not exceeding 12 months. However, in cases where it appears proper and reasonable, the Administration may extend this period to 17 months;
- .2 at an approved servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel.²

8.2 All repairs and maintenance of inflated rescue boats shall be carried out in accordance with the manufacturer's instructions. Emergency repairs may be carried out on board the ship; however, permanent repairs shall be effected at an approved servicing station.

9 Periodic servicing of hydrostatic release units Hydrostatic release units shall be serviced:

- .1 at intervals not exceeding 12 months. However, in cases where it appears proper and reasonable, the Administration may extend this period to 17 months;
- .2 at a servicing station which is competent to service them, maintains proper servicing facilities and uses only properly trained personnel.

SECTION II - PASSENGER SHIPS
(ADDITIONAL REQUIREMENTS)

* * * * *

Regulation 21
Personal life-saving appliances

* * * * *

3 Lifejacket lights

3.1 This paragraph applies to all passenger ships. passenger ships constructed before 1 July 1986, the paragraph shall apply not later than 1 July 1991.

3.2 On passenger ships engaged on international voyages which are short international voyages each lifejacket shall be fitted with a complying with the requirements of regulation 32.3.

² Reference is made to the "Recommendation on the conditions for the approval of servicing stations for inflatable liferafts" adopted by the Organization by resolution A.333(IX).

4 Immersion suits and thermal protective aids

- 4.1 This paragraph applies to all passenger ships. With respect to passenger ships constructed before 1 July 1986, the requirements of this paragraph shall apply not later than 1 July 1991.
- 4.2 Passenger ships shall carry for each lifeboat on the ship at least three immersion suits complying with the requirements of regulation 33 and, in addition, a thermal protective aid complying with the requirements of regulation 34 for every person to be accommodated in the lifeboat and not provided with an immersion suit. These immersion suits and thermal protective aids need not be carried:
- .1 for persons to be accommodated in totally or partially enclosed lifeboats; or
 - .2 if the ship is constantly engaged on voyages in warm climates where, in the opinion of the Administration, thermal protective aids are unnecessary.
- 4.3 provisions of paragraph 4.2.1 also apply to totally or partially enclosed lifeboats not complying with the requirements of regulation 42, 43 or 44, provided they are carried on ships constructed before 1 July 1986.

[Note: By statute (46 U.S.C. 3102(a)), exemptions under paragraph 4.2.1 may not be granted to any U.S. registered ship.)

* * * * *

Regulation 25
Drills

- 1 This regulation applies to all passenger ships.
- 2 On passenger ships, an abandon ship drill and fire drill shall take place weekly.

SECTION III - CARGO SHIPS
(ADDITIONAL REQUIREMENTS)

Regulation 26
Survival craft and rescue boats

* * * * *

- 3 In addition to their lifeboats, cargo ships constructed before 1 July 1986 shall carry not later than 1 July 1991:
- .1 one or more liferafts of such aggregate capacity as will accommodate the total number of persons on board. The liferaft or liferafts shall be equipped with a lashing or an equivalent means of securing the liferaft which will automatically release it from a sinking ship;

- .2 where the survival craft are stowed in a position which is more than 100 m from the stem or stern, in addition to the liferafts required by paragraph 3.1, a liferaft stowed as far forward or aft, or one as far forward and another as far aft, as is reasonable and practicable. Notwithstanding the requirements of paragraph 3.1, such liferaft or liferafts may be securely fastened so as to permit manual release.

Regulation 27
Personal life-saving appliances

* * * * *

2 Lifejacket lights

- 2.1 This paragraph applies to all cargo ships. With respect to cargo ships constructed before 1 July 1986, this paragraph shall apply not later than 1 July 1991.
- 2.2 On cargo ships, each lifejacket shall be fitted with a light complying with the requirements of regulation 32.3.

3 Immersion suits and thermal protective aids

- 3.1 This paragraph applies to all cargo ships. With respect to cargo ships constructed before 1 July 1986, this paragraph shall apply not later than 1 July 1991.
- 3.2 Cargo ships shall carry for each lifeboat on the ship at least three immersion suits complying with the requirements of regulation 33 or, if the Administration considers it necessary and practicable, one immersion suit complying with the requirements of regulation 33 for every person on board the ship; however, the ship shall carry in addition to the thermal protective aids (carried as lifeboat, liferaft, or rescue boat equipment), thermal protective aids complying with the requirements of regulation 34 for persons on board not provided with immersion suits. These immersion suits and thermal protective aids need not be required if the ship:
- .1 has totally enclosed lifeboats on each side of the ship of such aggregate capacity as will accommodate the total number of persons on board; or
 - .2 has totally enclosed lifeboats capable of being launched by free-fall over the stern of the ship of such aggregate capacity as will accommodate the total number of persons on board and which are boarded and launched directly from the stowed position, together with liferafts on each side of the ship of such aggregate capacity as will accommodate the total number of persons on board; or
 - .3 is constantly engaged on voyages in warm climates where, in the opinion of the Administration, immersion suits are unnecessary.

[Note: By statute (46 U.S.C. 3102(a)), exemptions under paragraphs 3.2.1 and 3.2.2 may not be granted to any U.S. registered ship.]

- 3.3 Cargo ships [that have been permitted to substitute liferafts and a rescue boat for the required lifeboats] shall carry immersion suits complying with the requirements of regulation 33 for every person on board unless the ship:

- .1 has davit-launched liferafts; or
- .2 has liferafts served by equivalent approved appliances capable of being used on both sides of the ship and which do not require entry into the water to board the liferaft; or
- .3 is constantly engaged on voyages in warm climates where, in the opinion of the Administration, immersion suits are unnecessary.

[Note: By statute (46 U.S.C. 3102(a)), exemptions under paragraphs 3.3.1 and 3.3.2 may not be granted to any U.S. registered ship.]

3.4 * * *

3.5 The totally enclosed lifeboats referred to in paragraphs 3.2.1 and 3.2.2 carried on cargo ships constructed before 1 July 1986 need not comply with the requirements of regulation 44.

* * * * *

PART C - LIFE-SAVING APPLIANCE REQUIREMENTS

SECTION I - GENERAL

Regulation 30

General requirements for life-saving appliances

- 1 Paragraph 2.7 applies to all ships. With respect to ships constructed before 1 July 1986, paragraph 2.7 shall apply not later than 1 July 1991.
- 2 Unless expressly provided otherwise or unless, in the opinion of the Administration having regard to the particular voyages on which the ship is constantly engaged, other requirements are appropriate, all life-saving appliances prescribed in this part shall:

* * * * *

.7 be fitted with retroreflective material where it will assist in detection and in accordance with the recommendations of the Organization³;

* * * * *

SECTION VIII - MISCELLANEOUS

Regulation 51

Training manual

The training manual, which may comprise several volumes, shall contain instructions and information, in easily understood terms illustrated wherever possible, on the life-saving appliances

³ Reference is made to the "Recommendation on retroreflective tapes on life-saving appliances" adopted by the Organization in resolution A.274(VII).

provided in the ship and on the best methods of survival. Any part of such information may be provided in the form of audio-visual aids in lieu of the manual. The following shall be explained in detail:

- .1 donning of lifejackets and immersion suits, as appropriate;
- .2 muster at the assigned stations;
- .3 boarding, launching, and clearing the survival craft and rescue boats;
- .4 method of launching from within the survival craft;
- .5 release from launching appliances;
- .6 methods and use of devices for protection in launching areas, where appropriate;
- .7 illumination in launching areas;
- .8 use of all survival equipment;
- .9 use of all detection equipment;
- .10 with the assistance of illustrations, the use of radio life-saving appliances;
- .11 use of drogues;
- .12 use of engine and accessories;
- .13 recovery of survival craft and rescue boats including stowage and securing;
- .14 hazards of exposure and the need for warm clothing;
- .15 best use of the survival craft facilities in order to survive;
- .16 methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), breeches-buoy and shore life-saving apparatus and ship's line-throwing apparatus;
- .17 all other functions contained in the muster list and emergency instructions;
- .18 instructions for emergency repair of the life-saving appliances.

Regulation 52
Instructions for on-board maintenance

Instructions for on-board maintenance of life-saving appliances shall be easily understood, illustrated wherever possible, and, as appropriate, shall include the following for each appliance:

- .1 a checklist for use when carrying out the inspections required by regulation 19.7;
- .2 maintenance and repair instructions;
- .3 schedule of periodic maintenance;
- .4 diagram of lubrication points with the recommended lubricants;
- .5 list of replaceable parts;
- .6 list of sources of spare parts;
- .7 log for records of inspections and maintenance.

Regulation 53
Muster list [station bill] and emergency instructions

- 1 The muster list shall specify details of the general emergency alarm signal prescribed by regulation 50 and also action to be taken by crew and passengers when this alarm is sounded. The muster list shall also specify how the order to abandon ship will be given.
- 2 The muster list shall show the duties assigned to the different members of the crew including:
 - .1 closing of the watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes and other similar openings in the ship;
 - .2 equipping of the survival craft and other life-saving appliances;
 - .3 preparation and launching of survival craft;
 - .4 general preparations of other lifesaving appliances;
 - .5 muster of passengers;
 - .6 use of communication equipment;
 - .7 manning of fire parties assigned to deal with fires;
 - .8 special duties assigned in respect to the use of fire-fighting equipment and installations.
- 3 The muster list shall specify which officers are assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use.
- 4 The muster list shall specify substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions.

- 5 The muster list shall show the duties assigned to members of the crew in relation to passengers in case of emergency. These duties shall include:
 - .1 warning the passengers;
 - .2 seeing that they are suitably clad and have donned their lifejackets correctly;
 - .3 assembling passengers at muster stations;
 - .4 keeping order in the passageways and on the stairways and generally controlling the movements of the passengers;
 - .5 ensuring that a supply of blankets is taken to the survival craft.
- 6 The muster list shall be prepared before the ship proceeds to sea. After the muster list has been prepared, if any change takes place in the crew which necessitates an alteration in the muster list, the master shall either revise the list or prepare a new list.
- 7 The format of the muster list used on passenger ships shall be approved.

Approved Lifesaving Equipment under the 1983 SOLAS AmendmentsBOATS, RAFTS, AND ASSOCIATED EQUIPMENT

<u>ITEM</u>	<u>APPROVAL SERIES</u>	<u>REMARKS</u>
Lifeboats	160.135	Nameplate marked "SOLAS 74/83".
Rescue Boats	160.156	Nameplate marked "SOLAS 74/83". Boats approved as both a lifeboat and a rescue boat will carry both approval numbers.
Davits	160.132	Nameplate marked "SOLAS 74/83".
Winches	160.115	Nameplate marked "SOLAS 74/83".
Inflatable Liferrafts	160.151	Nameplate marked "SOLAS 74/83". Fully equipped rafts are also marked "SOLAS A PACK". Liferrafts with this marking shall be considered fully equivalent to "OCEAN SERVICE" rafts.
Rigid Liferrafts	160.118	Nameplate marked "SOLAS 74/83". (As of the date of this circular, no manufacturer has expressed intent to produce this item.)
Liferaft Launching Dvc.	160.163	Nameplate marked "SOLAS 74/83".
Automatic Disengaging Dvc.	160.170	Label marked "SOLAS 74/83".
Hydraulic Release Units	160.162	Label marked "SOLAS 74/83".
Marine Escape Slides	160.175	All marine escape slides with a CG approval number will meet the 1983 SOLAS Amendments.

PERSONAL LIFESAVING APPLIANCES

<u>ITEM</u>	<u>APPROVAL SERIES</u>	<u>REMARKS</u>
Immersion Suits	160.171	Label marked "SOLAS 74/83".
Thermal Protective Aids	160.174	New item. All CG approved TPAs meet the 1983 SOLAS Amendments.
Life Jackets	160.155	Label marked "SOLAS 74/83".
Inflatable Life Jackets	160.076	Currently approved inflatable life jackets meet new SOLAS requirements.

<u>ITEM</u>	<u>APPROVAL SERIES</u>	<u>REMARKS</u>
Life Jacket Lights	161.112	Label marked "SOLAS 74/83".
Ring Life buoys	160.150	Label marked "SOLAS 74/83".
Floating Elec. Water Light	161.010	Currently approved lights meet new SOLAS requirements.
15 min. Smoke Signal	160.157	Label marked "SOLAS 74/83".

LIFEBOAT AND LIFERAFT EQUIPMENT

<u>ITEM</u>	<u>APPROVAL SERIES</u>	<u>REMARKS</u>
5 (3) min. Smoke Signal	160.122	Label marked "SOLAS 74/83".
Hand Red Flare	160.121	Label marked "SOLAS 74/83".
Rocket Parachute Flare	160.136	Label marked "SOLAS 74/83".
Lifeboat Searchlights	161.106	Label marked "SOLAS 74/83".
Lifeboat Hatchet	160.013	Currently approved hatchets meet new SOLAS requirements.
Lifeboat Sea Anchor	160.019	Currently approved sea anchors meet new SOLAS requirements.
Lifeboat Compass	160.014	Currently approved compasses meet new SOLAS requirements.
Emergency Drinking Water	160.026	Currently approved water meets new SOLAS requirements, however, water quantity required in boats and rafts changes.
Emergency Provisions	160.046	Currently approved provisions meet new SOLAS requirements; however, quantity required in boats and rafts changes.
Lifeboat First Aid Kits	160.041	Currently approved kits meet new SOLAS requirements.
Liferaft First Aid Kits	160.054	Currently approved kits meet new SOLAS requirements.

<u>ITEM</u>	<u>APPROVAL SERIES</u>	<u>REMARKS</u>
Signal Mirrors	160.020	Currently approved mirrors meet new SOLAS requirements.
Bilge Pumps	160.044	Currently approved pumps meet new SOLAS requirements.
Jackknives	160.043	Currently approved knives meet new SOLAS requirements.
Fishing Tackle Kits	160.061	Currently approved fishing tackle kits meet new SOLAS requirements.
Flashlights	161.008	Currently approved flashlights meet new SOLAS requirements.
Retroreflective Material	164.018	Currently approved materials meet new SOLAS requirements.
Radar Reflectors	-	Marked "Meets U.S. Coast Guard requirements for lifeboat and liferaft radar reflectors under SOLAS 74/83". However, under IMO MSC/Circ.447, carriage of radar reflectors is not required.

MISCELLANEOUS LIFESAVING APPLIANCES

<u>ITEM</u>	<u>APPROVAL SERIES</u>	<u>REMARKS</u>
Disembarkation Ladder	160.017	Rope ladders only, marked "USCG approved equivalent to chain ladder"
	- OR -	
	160.117	Label marked "SOLAS 74/83".
Line Throwing Appliances	160.040	Currently approved line throwing appliances meet new SOLAS requirements.

INTERNATIONAL MARITIME ORGANIZATION
4 ALBERT EMBANKMENT,
LONDON SE1 7SR

MSC/Circ.447
29 September 1986

Telephone: 01-735-7611
Telegrams: INTERMAR-LONDON SE1
Telex: 23588

IMO

CONTROL UNDER REGULATION 1/19 OF THE SOLAS CONVENTION

Recommendation on radar reflectors for liferafts and on training manuals

- 1 The Committee, at its fifty-third session (MSC 53/24, paragraph 23.1.14), noting the concern expressed at the Sub-Committee on Life-Saving Appliances eighteenth session regarding difficulties being experienced by some Administrations related to the provision of radar reflectors for inflatable liferafts and the provision of training manuals on existing ships, approved distribution of the attached recommendation on radar reflectors for liferafts and training manuals.
- 2 Contracting Governments are invited to take account of the recommendation when exercising port State control under regulation 1/19 of the 1974 SOLAS Convention, as amended.

CONTROL UNDER REGULATION 1/19 OF THE SOLAS CONVENTION

Recommendation on radar reflectors for liferafts and on training manuals

- 1 The Committee noted at its fifty-third session (MSC 53/24, paragraph 23.1.14) that the 1983 SOLAS Amendments, which entered into force on 1 July 1986 require, inter alia:
 - .1 an efficient radar reflector for liferafts (regulation 111/38.5.14); and
 - .2 a training manual (regulations 111/18.2 and 111/51).
- 2 The Committee is aware of the concern expressed by many Member Governments relating to the present non-availability of an efficient radar reflector for liferafts. The Committee also takes account of the recommendation of the Sub-Committee on Life-Saving Appliances (LSA 18/17, paragraph 16.1) to the effect that Contracting Governments to the SOLAS Convention should show flexibility in applying these requirements, until the appropriate equipment becomes available.
- 3 The Committee, while accepting the necessity of providing the training manual on board, is aware that for certain practical reasons it may not be possible for ships to comply strictly with the requirements of regulation 111/51 in the immediate future.
- 4 Recognizing these difficulties, the Committee recommends that the following should not constitute a reason for detaining or delaying a ship
 - .1 until the equipment becomes available, non-compliance with the provisions of the 1983 SOLAS Amendments regarding radar reflectors for liferafts; and
 - .2 failure to fully comply with the requirements for the training manual for the immediate future.
- 5 The Committee invited Contracting Governments to take account of this recommendation when exercising port State control under regulation 1/19 of the 1974 SOLAS Convention, as amended.

INTERNATIONAL MARITIME ORGANIZATION
4 ALBERT EMBANKMENT,
LONDON SE1 7SR

MSC/Circ.447
29 September 1986

Telephone: 01-735-7611
Telegrams: INTERMAR-LONDON SE1
Telex: 23588

IMO

DRAFT ASSEMBLY RESOLUTION ON SYMBOLS RELATED TO LIFE-SAVING APPLIANCES AND ARRANGEMENTS

- 1 At its fifty-third session the Committee (MSC 53/24, paragraphs 23.1.7 and 23.1.8) approved the draft Assembly resolution on symbols related to life-saving appliances and arrangements (MSC 53/24, annex 16) for submission to the fifteenth Assembly for adoption, and requested the Secretariat to circulate it to Governments concerned for implementation.
- 2 Member Governments are invited to note that the symbols shown in annex 1 need only be used if they are applicable to the types of survival craft and launching appliances carried on the ship and that the symbols shown in annex 2 are intended for use on a voluntary basis.

ANNEX 16

DRAFT ASSEMBLY RESOLUTION ON SYMBOLS RELATED TO LIFE-SAVING APPLIANCES
AND ARRANGEMENTS

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention of the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety,

BEARING IN MIND that regulation 1119.2 of the 1974 SOLAS Convention, as amended, prescribes that posters or signs shall be provided on or in the vicinity of survival craft and their launching controls and shall use symbols in accordance with the recommendations of the Organization,




RECOGNIZING the urgent need for establishing international symbols for these purposes on board ships,

RECOGNIZING FURTHER the need for other uniform symbols to indicate the location of emergency equipment, and muster and embarkation stations,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its fifty-third session,

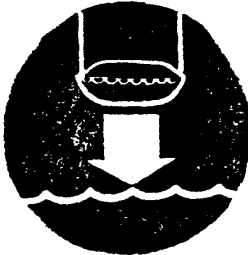
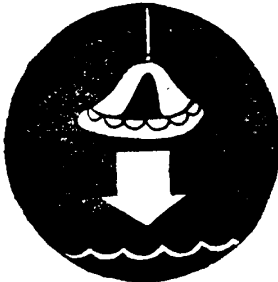
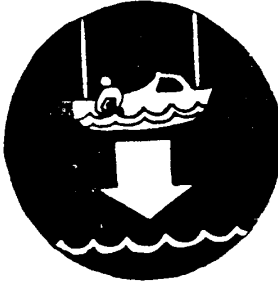

1. ADOPTS the symbols for use in accordance with regulation 111/9.2.3 of the 1974 SOLAS Convention, as amended, set out in annex 1 to the present resolution;
2. ALSO ADOPTS the recommended symbols indicating the location of emergency equipment, and muster and embarkation stations set out in annex 2 to the present resolution;
3. URGES Contracting Governments to the International Convention for Safety of Life at Sea, 1974, to ensure that, where appropriate, symbols used on board ships are in compliance with those set out in the annexes to the present resolution; and
4. REQUESTS the Maritime Safety Committee to keep this resolution under review and to report as necessary to the Assembly.




SYMBOLS FOR USE IN ACCORDANCE WITH
REGULATION III/9.2.3 OF THE 1974 SOLAS CONVENTION, AS AMENDED

Reference**/	Item	Set	Symbol*/
1	FASTEN SEAT BELTS		
2	SECURE HATCHES		
3	START ENGINE		

*/
 **/

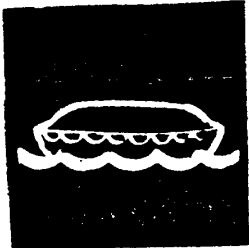


All symbols should be made in white on blue background. Numbers are used for reference purposes only and do not indicate the sequence of events as this will depend on the type of survival craft and launching appliances provided on board the ship.

Reference	Item	Symbol
4	LOWER TO THE WATER:	
4.1	the lifeboat	
4.2	the liferaft	
4.3	the rescue boat	
5	RELEASE FALLS	

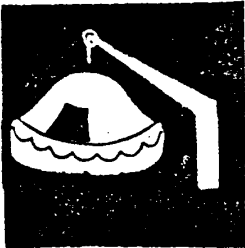
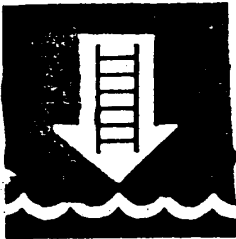
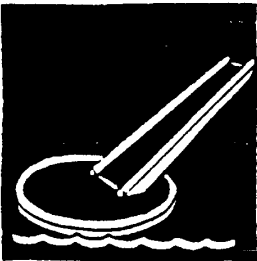
Reference	Item	Symbol
6	START WATER SPRAY	
7	START AIR SUPPLY	
8	RELEASE GRIPES	

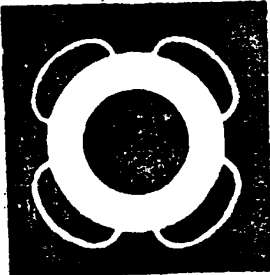
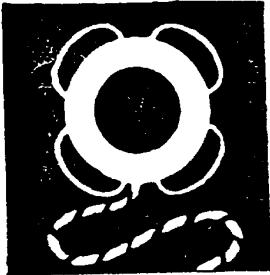
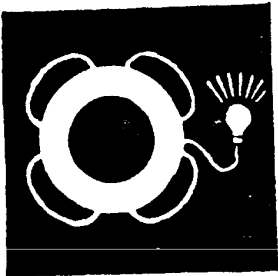
RECOMMENDED SYMBOLS INDICATING THE LOCATION
OF EMERGENCY EQUIPMENT, AND MUSTER AND EMBARKATION STATIONS

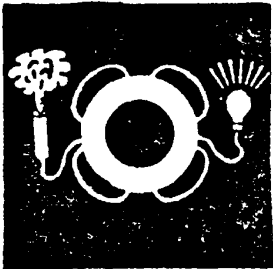
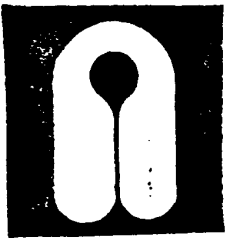

Where appropriate, symbols may be used with a white direction arrow on a green background (see reference 22).


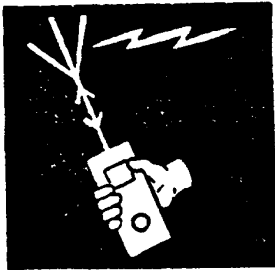
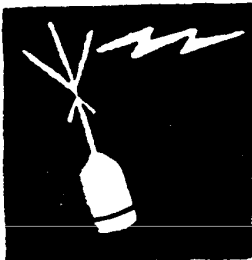
Reference	Item	Symbol */
1	LIFEBOAT	
2	RESCUE BOAT	
3	LIFERAFT	


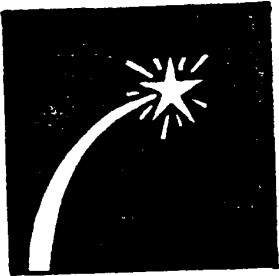
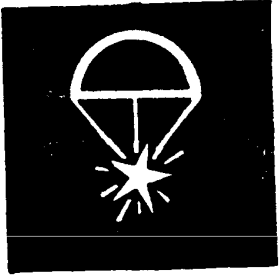
*/ All symbols should be made in white on a green background.


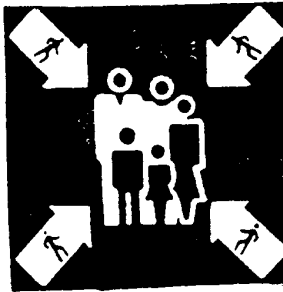

Reference	Item	Symbol
4	DAVIT LAUNCHED LIFERAFT	
5	EMBARKATION LADDER	
6	EVACUATION SLIDE	

Reference	Item	Symbol
7	LIFEBUOY	
8	LIFEBUOY WITH LINE	
9	LIFEBUOY WITH LIGHT	

Reference	Item	Symbol
10	LIFEBUOY WITH LIGHT AND SMOKE	
11	LIFEJACKET	
12	CHILD'S LIFEJACKET	



Reference	Item	Symbol
13	IMMERSSION SUIT	
14	SURVIVAL CRAFT PORTABLE RADIO	
15	EPIRB	

Reference	Item	Symbol
16	RADAR TRANSPONDER	
17	SURVIVAL CRAFT PYROTECHNIC DISTRESS SIGNALS	
18	ROCKET PARACHUTE FLARES	

Reference	Item	Symbol
19	LINE THROWING APPLIANCE	
20	MUSTER STATION	<div><div></div><div><div>**</div><div></div><div>*</div></div></div>

* The station number should be included on the right hand side of the symbol.

** The dashed line indicates that the whole symbol may be made up as one symbol or of two separate parts (one for the sign and another for the number). When a direction indicator (arrow) is also used it may be part of the whole symbol or a separate part. The dashed line should not be shown.

Reference	Item	Symbol
21	<p>EMBARKATION STATION</p> <p>(May be used in lieu of muster station symbol when embarkation and muster stations are the same)</p>	<p>***</p>  <p>**</p>
*	Use appropriate symbol for type of survival craft at the station	** The station number should be included on the right hand side of the symbol.
22	<p>DIRECTION INDICATOR (for use with any symbol)</p>	<p>***</p>  <p>**</p>
*	Insert appropriate symbol (i.e. symbols 1 to 21) on left hand side of the arrow	** Point arrow in the direction to the equipment or station

*** The dashed line indicates that the whole symbol may be made up as one symbol or of two separate parts (one for the sign and another for the number). When a direction indicator (arrow) is also used it may be part of the whole symbol or a separate part. The dashed line should not be shown.